

NESTAR

PLAN SERIES

PLAN 5000

MULTI-FUNCTION FILE SERVER

Nestar's PLAN 5000 is a high capacity, floor standing, multi-function server typically supporting 30 to 60 users per file server. Designed to provide the larger capacity needed to support heavy storage

requirements with multiple additional server functions, the PLAN 5000 is a key component of Nestar's total systems approach to resource and information sharing. The PLAN 5000 combines sophisticated networking technologies with field-proven server firmware to provide a distinctive, highly useful information systems networking product for use by large organizations.

The PLAN 5000 is a multi-function server, managing access to multiple printers and shared disk storage for networked user workstations (PCs). Its features include:

- **Password protection;**
- Efficient **storage**, with **back-up** capability;
- **Error checking** and recovery;
- Reliable, integrated **tape back-up;**
- **Fault-tolerant** (Shadow™) mode;
- **Controlled access** to files;
- **System manager** function;
- Print server supports **two parallel plus one serial printer;**
- Simultaneous **de-spooling** on all three printers; and
- **User-specified printer forms**, set up, number of copies, and priority.

Additional functions are available through co-processor expansion cards. One print server co-processor card is standard.

The PLAN 5000 can support up to 255 workstations, servers, and server co-processors on a single network, including any combination of IBM and IBM-compatible PC workstations. The server is housed in an attractive, movable cabinet that fits conveniently under a desk or table. Disk capacity is modular and easily expanded. The system management console can be located near the server or remotely.

The PLAN 5000 is designed to permit users to share data and programs in a secure, reliable system with complete back-up.



NESTAR PLAN 5000 MULTI-FUNCTION FILE SERVER

PCs (Workstations) Supported:

IBM PC, Portable PC, PC/XT, PC/AT, XT/370, AT/370, 3270/PC, Apple II, and many IBM-compatibles.

Operating Systems Supported:

IBM PC DOS Versions 2.1 and 3.0, IBM PC UCSD p-System; or Apple Pascal System.

Network Interface:

BNC female connector for RG-62 coaxial cable terminated by BNC male connector. Includes internal HUB for coaxial cable (fiber optic support optional).

System Management Console:

Locally connected ASCII CRT terminal for operations where system security applies. Operations include disk back-up to tape, password protection, password override. RS-232 connector, plus RS-232C communications port for remote ASCII terminal.

Multi-function capability:

Provision for up to four multi-function (co-processor) feature cards. Standard: one print server card. Network connection through either internal passive HUB or external active HUB.

File Security:

To provide security with multiple simultaneous users, PLAN 5000 firmware incorporates password protection with implied access rights resulting in controlled access to shared programs and data. Different subsets of users may have read, write, exclusive, or shared access to the same volumes. Locking at volume, file, record, and field levels provides for applications requiring multiuser update facilities.

Dimensions:

	H	W	D
Server (all models)	26.25	17.50	27.00 in.
Expansion Unit (Models 30, 40)	26.25	11.50	27.00 in.

Electrical Requirements:

Voltage: 100-125 or 200-250 VAC
Frequency: 47-63 Hz
AC Receptacle: IEC
Cord Supplied: NEMA 5-15P (USA)

Operating Environment:

Temperature: 10-40°C
Relative Humidity: 20-80%
non-condensing

Configurations:

Model	10	20	30	40
Order Number	C-5211	C-5221	C-5231	C-5241
Disk Capacity (MBytes)	289	578	867	1156
Current (amps)				
@ 100-125 VAC	6	10	14	14
@ 200-250 VAC	3	5	7	7
Heat Generated (Btu/hr)	1365	1706	2106	2506
Weight (lbs)	105	145	250	290

Models 10 and 20 are a single server.

Models 30 and 40 are a single server plus one expansion unit.

Specifications Summary.

Disk:

8-in. Winchester (with advanced linear voice-coil actuator).

System Reliability:

A streaming tape drive is provided for disk back-up and both full and incremental dump restore. The head design reduces the risk of data loss during power-off movement. A Shadow™ feature for IBM PC DOS applications provides automatic support for a secondary file server operating in a transparent, 'hot back-up' mode.

Back-up Tape Drive:

Drive type:	Streamer
Capacity:	60MBytes
Tape type:	ANSI Quarter Inch Cartridge
Recording format:	QIC-24
Transfer rate:	90KBytes/sec
Recording density:	
bytes/inch	8,000
fci (ftpi)	10,000
Media speed:	
(R/W/Rewind)	90 ips

Operational Characteristics:

Printers Supported:

Parallel: Two printers compatible with IBM PC parallel card
Signals: Eight data lines; STROBE; ACK; BUSY; SELECT; and ERROR (two DB-25 female jacks)
Serial: One printer compatible with IBM PC asynchronous communications card
Signals: Tx/D, Rx/D, DSR, DTR, CD, Ground, RTS, CTS, RING (one DB-25 male jack)

Flow Control Protocols:

Parallel: STROBE/ACK
Serial: DSR/DTR, CTS/RTS, ETX/ACK, XON/XOFF

Speed:

Serial: 19.2K bits/sec

Print Server Co-processor:

The print server co-processor card provides virtual printing capability to PC users and application programs without impacting the performance of the file server functions. Two parallel and one serial printer are supported, operating concurrently. Features include spooled printing, no perceptible interjob time, and extensive operator/user queue management functions.

Functional Capabilities:

Three simultaneous print jobs active

Operator controls:

- Change forms, detach printer
- Cancel job, defer job
- Restart print server

Number of file servers per print server: 5

Types of files printed:

Spooled output (IBM PC DOS environment)

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